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SURFACE WARFARE JUNIOR OFFICER RETENTION: EARLY CAREER DEVELOPM--ETC(U)
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**SURFACE WARFARE JUNIOR OFFICER RETENTION:
EARLY CAREER DEVELOPMENT FACTORS**

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assignment variation, and individual perceptions of the work environment during the initial sea tour. Also, professional development progress was positively related to career intent and officer performance, as indicated by fitness reports. Findings are discussed with attention to policy/leadership implications.

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FOREWORD

The research was conducted in response to a request from the Navy Military Personnel Command (NMPC-4) to determine factors related to retention of junior surface warfare officers (SWOs).

This report is the fourth in a series regarding junior SWO retention. The first report, NRPDC TR 79-29, provided a research plan designed to explore the factors affecting junior SWO retention. The second, NRPDC TR 80-13, focused on the relationship between the assignment process and career decision making. The third, NRPDC TR 81-17, described the influence of wives on career decision making and, conversely, the influence of junior SWO careers on the attitudes and perceptions of wives. The current report describes relationships between background factors, early career preparation/experience, and professional development.

Appreciation is expressed to RADM John F. Addams (formerly NMPC-41), CDR F. Julian (formerly NMPC-412), and CDRs Richard Curley and Kurt Driscoll (formerly of OP-136D) for their critical support and assistance in the early phases of this project. The cooperation of those junior SWOs who participated in the research and the significant contribution of Robert F. Holzbach in the earlier phases of the project are gratefully acknowledged.

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SUMMARY

Problem and Background

Retention statistics show that the surface forces have experienced increasing difficulty in meeting their junior officer retention goals. To address this problem, the Navy Personnel Research and Development Center has been conducting a study on retention of junior surface warfare officers (SWOs). The first report issued on this study described a research plan designed to explore the factors or areas affecting retention. Research questions were identified, and a questionnaire was developed to obtain answers to these questions. Subsequently, the questionnaire was administered to a sample of male junior SWOs. Plans were to analyze data provided by the questionnaire to determine how various factors affected junior officer retention. Factors studied to date include the assignment process and spousal influence on career decision making.

Objectives

The purpose of this study was to identify relationships among personal background factors, attendance at Surface Warfare Officer School (SWOS)-Basic, first sea tour factors, attainment of SWO Personal Qualification Standards (SWO PQS), officer performance, and career intent.

Approach

For this investigation, a subsample ($N = 267$), representing commissioning year groups 1974-1977, was selected from the original 359 junior SWO respondents to address the basic research objectives. A cross-sectional design was employed to test specific hypotheses.

Results

1. Controlling for time in service, career intentions of junior SWOs were positively related to SWO PQS progress. In addition, expeditious completion of SWO PQS was positively related to junior SWO performance evaluations (fitness reports).
2. Analyses conducted to isolate factors associated with SWO PQS progress and timely completion indicated that:
 - a. Background factors (e.g., commissioning source, academic and military class rankings, etc.) were not related to SWO PQS completion.
 - b. Those who attended SWOS-Basic in 1974-1975 completed SWO PQS in significantly less time than did those from the same year groups who did not attend.
 - c. Those assigned to engineering billets for the majority of their initial sea tour progressed toward SWO PQS at a significantly slower rate and reported significantly lower career intentions than did those assigned to weapons, operations, and/or deck billets, or those rotated through several assignments. However, fitness reports for those assigned primarily to engineering, on the average, were slightly higher than fitness reports for those with other assignment patterns.
 - d. Expedited completion of SWO PQS was associated with positive evaluations of professional development opportunities and professional growth while deployed and to a sense of personal accomplishment when not deployed.

e. Positive perceptions of the immediate work group (e.g., division) were associated with SWO PQS progress.

f. Those most influenced by department heads, the executive officer, or the commanding officer progress toward SWO PQS at a faster rate than do those influenced by other sources (e.g., peers). Across ship types, department heads were reported as the principal source of influence regarding career decisions.

Conclusions

1. The expeditious attainment of SWO PQS has a significant, positive impact on the early career performance evaluations and career intentions of junior SWOs.

2. In addition to attendance at SWOS-Basic, initial sea tour experiences, perceptions, and shipboard assignment patterns influence the expeditious attainment of SWO PQS. Of particular importance is the finding that those spending the majority of their initial sea tour in an engineering billet are (a) at a disadvantage regarding professional development opportunities and (b) less likely to desire a career even though the average performance of this group is equal to, or greater than, other assignment pattern groups.

Recommendations

1. SWOS-Basic is fulfilling an important function and should be continued as mandatory training en route to the first sea assignment.

2. The professional development unit of instruction at SWOS-Basic should be expanded to include (a) the role of junior SWO initiative/responsibility in completing SWO PQS, (b) the importance of using available information sources (formal and informal), and (c) the importance of assignment variation aboard ship to facilitate the qualification process. In addition, it should be emphasized throughout SWOS-Basic that timely SWO PQS completion is associated with such important outcomes as performance and future selection/promotion opportunity.

3. Commanding officers should establish programs for junior SWOs aboard ship that complement the preparation received in SWOS-Basic and direct personal attention to such programs to ensure timely attainment of SWO PQS by all junior officers. Particular attention should be directed to the managed rotation of all junior officers through a variety of assignments when possible so that all receive an equal opportunity for professional development.

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INTRODUCTION

Problem and Background

Because of concern with the retention of junior surface warfare officers (SWOs) beyond their minimum service requirement (MSR), the Navy Personnel Research and Development Center and the Surface Warfare Officer Distribution Division of the Naval Military Personnel Command (NMPC-41) initiated research to identify individual and organizational factors related to their career intent, decision making, and development. This report is the fourth in a series being issued concerning that project. The first report (Holzbach, 1979) described an in-depth analysis of the problem area and the development of a research plan to target factors related to junior SWO retention. Research questions to guide the research approach and analyses were identified, and a questionnaire was developed and pretested as a means for obtaining answers to these questions. This questionnaire consists of seven sections: (1) Background, (2) Professional Qualifications, (3) Career Intentions, (4) Assignment History and Evaluation, (5) Assignment Process, (6) Decision Process, and (7) Supplemental Questions. Additionally, an index of officer quality was developed and validated using selected information from the "Report of Fitness of Officers."

In November 1978, the survey questionnaire was mailed to a random sample of 691 male junior SWOs, LT and below, who had not yet been assigned to the department head school. Twenty-seven of the questionnaires could not be delivered, leaving a potential sample of 664 officers. Of these, 359 returned the questionnaire, providing a response rate of 54 percent. However, 47 junior officers were eliminated from the sample, primarily because of insufficient data. Thus, the final sample consisted of 312 officers, providing a return rate of 47 percent. Plans were to analyze data provided by completed questionnaires to determine how various factors affected junior SWO retention. The first factor to be studied was junior officer experiences in and attitudes toward the assignment process (Holzbach, Morrison, and Mohr, 1980); the second was junior officer perceptions relative to the experiences, attitudes, and opinions of their wives and the influence of such perceptions on career decision making.

Another factor identified as affecting job performance, career intent, and retention was early career experiences and development. For example, the timely, sequential completion of certain developmental steps, such as the Personal Qualification Standards (PQS) for SWOs is considered essential for promotion consideration and critical career assignments. However, little is known about the relationship between such developmental steps and other career experiences and satisfaction with the Navy, career intentions, and retention.

Purpose

The purpose of this investigation was to determine relationships among background factors, early work experiences/environments, progress toward and attainment of career essential professional qualifications (SWO PQS), career intent, and officer performance. Specifically, the following research questions were addressed:

1. Associations between SWO PQS progress/attainment, officer performance, and expressed career intentions.
2. The effectiveness of Surface Warfare Officer School (SWOS)-Basic in preparing junior officers for timely SWO PQS completion.

3. Relationships between personal background and initial sea tour factors and timely SWO PQS completion.

METHOD

Sample

For purposes of this study, the original sample of 312 was reduced by including only those who had been commissioned during years 1974-1977 (in order to assess the impact of SWOS-Basic as a mandatory prerequisite of the first sea tour¹) and those commissioned through sources outside the Naval Enlisted Scientific Education Program (NESEP). The final reduced sample was 267, which was expected to represent the population of junior SWOs (Comm. Yrs. 1974-1977) with a ± 6 percent error of estimate. It was assumed that this error of estimate would be randomly distributed across subgroups designated within the sample.

Measures

A copy of the survey questionnaire was provided in Holzbach (1979). Those sections/items of the questionnaire of interest to this particular effort are reproduced in the appendix and described below.

1. Section I--Background. Three items from this section were included. They asked respondents to indicate their commissioning source and year (No. 8), their academic and military class rank (No. 10), and whether or not they had attended SWOS-Basic (No. 12).

2. Section II--Professional Qualifications. Three items from this section were included. The first two asked respondents to indicate what percentage of the SWO POS they had completed (No. 1) and when they were awarded the 111X designator (i.e., when they had completed SWO PQS) (No. 2). The third asked them to supply certain information from their last six fitness reports (FITREPS). (During questionnaire development, it had been determined that this information could be modeled by linear regression to represent the variables most used by decision makers in junior SWO selection/promotion decisions (see Holzbach, 1979, for method of computation).)

3. Section III--Career Intentions. This section consists of only one question: "To what degree are you now certain that you will continue an active military career until mandatory retirement?" Respondents answered this question using the Military Career Commitment Gradient (MCCOG) (a 50-point scale measuring career commitment) developed for the U.S. Military Academy (Bridges, 1969; Butler, 1973; Butler & Bridges, 1976).

4. Section IV--Assignment History and Evaluation of First Sea Tour. This section consists of questions applying to respondent's first sea tour following commission as an SWO. Items of interest to this study concerned ship type (No. 1), assignment history (areas where respondents had been assigned and for how long) (No. 5), whether junior

¹SWOS-Basic was initiated in 1971. However, prior to 1976, junior SWOs attended SWOS-Basic on an "as available" basis that was not related to precommissioning class standing (USNA graduates were not assigned to SWOS-Basic until 1974). Commencing in 1976, all junior SWOs had to attend SWOS-Basic prior to their initial sea tour.

officers had been extended beyond their projected rotation date (PRD) and why (Nos. 8 and 9), evaluations of job aspects and related duties when deployed and when not deployed (Nos. 10 and 11), evaluations of first commanding officer (No. 12), sources of influence on career decisions (No. 13), and global evaluations of ship, department, and division (No. 16).

Dependent Variables

Dependent variables of interest are listed below:

1. Percentage of SWO PQS Completed. The percentage of SWO PQS completed at the time the survey was administered. Since no objective criteria exist for the actual percentage complete, values represent the respondent's best subjective estimate.
2. Time Required to Complete SWO PQS. This applied to only those from YGs 1974-1975 who indicated they had completed 100 percent of SWO PQS.
3. SWO PQS--Complete vs. Not Complete. A dichotomous variable to indicate whether those from YGs 1974-1975 had or had not attained the 111X (Surface Warfare) designator.
4. Sources of Influence on Career Decisions. A variable to indicate the principal source of influence on career decisions during the sea tour.

Hypotheses

It was hypothesized that:

1. SWO PQS progress (percentage completed) would be positively related to opportunity to complete SWO PQS, as measured by length of service (LOS).
2. SWO PQS progress would be positively related to precommissioning academic and military class rankings. It was expected that junior SWOs commissioned through the United States Naval Academy (USNA) and the Naval Reserve Officer Training (Scholarship) program would progress toward SWO PQS at a faster rate than would those commissioned from other sources (e.g., Officer Candidate School (OCS), Naval Reserve Officer Training--Contract Program (NROTC-C)).
3. Junior SWOs from YGs 1974-75 (before SWOS-Basic was mandatory) and who had attended SWOS-Basic would complete SWO PQS requirements at a faster rate than would those who did not.
4. Junior SWOs who had had more than one departmental assignment during their first sea tour would progress toward SWO PQS at a faster rate than would those remaining in a single assignment.
5. Junior SWOs who had sufficient time in service to complete SWO PQS (those in YGs 1974-75) and who in fact had completed SWO PQS would be more positive toward personal opportunities for career development and professional growth than would those from the same cohorts who had not completed SWO PQS.
6. SWO PQS progress (percentage completed) would be related to positive evaluations of the initial ship and the immediate work environment (e.g., division).

7. SWO PQS progress would be related to the principle source of influence on junior SWO career decisions. It was expected that those who were positively influenced by senior officers in the chain of command would progress at a faster rate than would those influenced primarily by other sources (e.g., peers).

8. The timely completion of SWO PQS (in months) would be positively associated with performance ratings (FITREPS). In addition, it was expected that SWO PQS progress would be associated with positive career intent.

Analyses

Hypothesized associations were examined, within a cross-sectional design, using appropriate cross-tabulation, correlational, and multivariate statistical procedures. Since it was expected that LOS would influence progress toward SWO PQS, this relationship was examined using year of commissioning as a surrogate for LOS. If this relationship was significant, then year of commissioning was employed as a covariate to control for the effects of time.

Relationships between (1) the percentage of SWO PQS completed and the time required to complete SWO PQS and (2) FITREPS and career intent were evaluated by partitioning performance and intent scores (low third, middle third, high third) and then using these groups as blocking factors in analysis of variance (ANOVA) procedures.

For those analyses that addressed the impact of SWOS-Basic on timely SWO PQS completion, only those respondents from commissioning YGs 1974-1975 who had completed SWO PQS were included (those commissioned prior to the time when SWOS-Basic was made mandatory for assignment to the initial sea tour). This subgroup ($N = 112$) was generally distributed across commissioning sources and precommissioning academic and military class rankings.

RESULTS

In this section, the number of respondents reported in individual analyses varies because those with missing data were excluded. For example, in analyses conducted with time required to complete SWO PQS as the dependent variable, junior SWOs who had not completed SWO PQS at time of assessment were excluded.

Findings relative to the various hypotheses are discussed below.

1. Hypothesis 1. The percentage of SWO PQS completed was significantly related to LOS. Of those commissioned during 1974-75 ($N = 141$), the mean percentage of SWO PQS that was completed was 92.01 ($SD = 18.50$), compared to 76.73 percent completed by those commissioned in 1976-1977 ($N = 112$) ($F(1,251) = 33.57$, $p < .0001$). This finding confirmed the importance of controlling for commissioning year, as a surrogate for time, in subsequent analyses. Thus, length of commissioned service was entered as a covariate in each of the following analyses where appropriate.

2. Hypothesis 2. Contrary to expectations, SWO PQS progress, in terms of either percentage completed or time required for completion, was not significantly related to such background factors as commissioning source, academic or military class rank, academic major, or age at time of commissioning.

3. Hypothesis 3. Junior SWOs commissioned in 1974 and 1975 (before attendance of SWOS-Basic prior to their initial sea tour was mandatory) who attended SWOS-Basic completed their SWO PQS in significantly fewer months ($M=24.49$) than did those who did not attend ($M=32.81$) ($F(1,153)=17.15$, $p < .0001$). However, those who graduated with distinction from SWOS-Basic did not complete SWO PQS at a faster rate than did other graduates.

4. Hypothesis 4. The relationship between first sea tour shipboard assignment history and the percentage of SWO PQS completed was examined, controlling for year of commissioning. Table 1, which displays SWO PQS completion percentages by specific assignment categories, shows that those who remained in engineering billets for the entire first sea tour completed 75 percent of their SWO PQS, which was significantly lower than the percentage completed by those assigned to weapons, operations, or deck billets or those having multiple assignments. Results of the ANOVA test of single assignment group means (adjusted for one covariate, commissioning year, $F(1,102) = 19.91$, $p < .001$) are significant, $F(3,100) = 2.85$ $p < .05$, as were differences between the engineering and weapons groups ($F(1,60) = 4.91$, $p < .0001$) and between the deck, navigation, other, and multiple assignments groups ($F(1,111) = 7.28$, $p < .008$). Also, results of the ANOVA test of single vs. multiple assignment group means (adjusted for one covariate, commissioning year $F(1,207) = 41.91$, $p < .001$) are significant, $F(1,201) = 6.05$, $p < .015$.

Table 1
Percentage of Junior SWOs Completing SWO PQS by
Initial Sea Tour Assignment History

Assignment History	Mean	SD	N
Single Assignment:	84.01	25.18	104
Deck, navigation, other	86.25	23.13	14
Engineering	74.76	28.69	43
Operations	86.37	25.70	28
Weapons	89.40	18.00	19
Multiple Assignments	90.75	14.58	99
Total	87.30	22.13	203

Those remaining in engineering billets reported significantly lower career intentions than did those with other patterns ($M = 21.13$ and 24.21) ($F(1,189)=4.04$, $p < .05$). However, FITREPS were not significantly different across assignment groups. In fact, evaluations for the engineering only group were higher, on the average, than were those for other assignment groups. These results were independent of ship type and commissioning source.

5. Hypothesis 5. Associations between SWO PQS completion and junior SWO perceptions regarding job aspects and related duties while deployed and while not deployed during the first sea tour were examined using a hierarchical multiple regression procedure. As shown in Table 2, which provides a summary of the multiple procedure, junior officers felt that they were making progress toward SWO PQS and had an

Table 2

Summary of Multiple Regression: SWO PQS (Complete vs. Not Complete) with Selected Perceptions of First Sea Tour and Ship Status

Note. Analysis included 119 junior officers who had completed SWO PQS and 101 who had not. Those with missing data were excluded from the analysis.

opportunity to grow professionally while deployed. Also, they associated SWO PQS completion with a sense of accomplishment when not deployed.

6. Hypothesis 6. As shown in Table 3, the percentage of SWO PQS completed was related to a positive evaluation of division to which assigned. However, it was not related to evaluation of first ship (untabled). Thus, this hypothesis was partially confirmed.

Table 3
Percentage of SWO PQS Completed by Evaluation of Shipboard Division
(1st Sea Tour)

Division Evaluation	Mean	SD	N
Below average	80.38	22.41	42
Above average	84.06	24.24	78
One of the best	89.56	18.06	105
Total	85.03	21.71	235

Note. The ANOVA test of group means (adjusted for one covariate, commissioning year, $F(1,233) = 36.70$, $p < .001$) is significant, $F(2,232) = 4.17$, $p < .003$.

7. Hypothesis 7. As shown in Table 4, junior SWOs assigned to destroyer/cruisers, amphibious ships, and carriers reported that their department head was the major source of influence on career decisions. Those assigned to mobile logistics support force (MLSF) ships reported that the executive officer was the most influential source, possibly because department heads on MLSF ships are often non-SWO limited duty officers who have different career patterns.

For junior SWOs who had more than sufficient time to complete SWO PQS requirements (those in YGs 1974-1975), the percentage of SWO PQS completed was significantly related to the major source of influence reported. Those most influenced by the CO/XO ($M = 93.19$) or department head had completed a greater percentage of SWO PQS than had those most influenced by peers ($M = 93.19$ and 91.84 vs. 80.36) ($F(2,171)=3.90$, $p < .03$). This finding was not related to type of ship to which assigned.

It is interesting to note that 38 percent of the junior SWOs assigned to carriers (10.2 % of the total sample) reported peers as the major source of influence, compared to an average of 9.4 percent of those assigned to other ship types. Also, those assigned to carriers who were most influenced by peers had completed less SWO PQS ($M = 72.85$ vs. $GM = 84.92$) and were rated significantly lower in performance (FITREPS) ($p < .05$), at the time of assessment than any other single group. This finding was not confounded with "pre-assignment quality"² as measured by precommissioning academic and military class standings.

²This definition of quality should not be confused with the variable "officer quality" as computed from FITREPS.

Table 4
Principal Source of Influence on Career Decisions by
Initial Sea Tour Ship Type

Source	Ship Type ^a				Total (%)
	Destroyer/ Cruiser (N)	Amphibious (N)	Mobile Logistic Support Force (N)	Carrier (N)	
Commanding officer	34	13	6	3 (23.8)	56
Executive officer	30	3	12	0 (19.1)	45
Department head	51	18	6	10 (36.2)	85
Other department heads	11	4	3	2 (8.5)	20
Junior officers	12	4	4	9 (12.4)	29
Column N (%)	138 (58.7)	42 (17.9)	31 (13.2)	24 (10.2)	235 (100.0)

Note. Numbers reported indicate frequency according to source and ship type. Individual officers are represented only once in the frequency tabulation.

^aThe ship type classifications were chosen to reflect ships of similar size, mission, and officer distribution.

8. Hypothesis 8. As shown in Table 5, which presents the time required to complete SWO PQS (months) by performance group, timely SWO PQS completion was significantly related to FITREPS. This finding was independent of ship type.

Table 6, which presents the percentage of SWO PQS completed by career intent groups, shows that career intent was significantly related to progress toward SWO PQS. For those in commissioning years 1974 and 1975 (those with more than sufficient time to complete SWO PQS), a completion vs. noncompletion variable was cross-tabulated with career intent group. A significant association was obtained ($\chi^2 (2) = 15.86$, $p < .004$), indicating that the low-intent group was underrepresented in the "completed SWO PQS" category (low = 53%, middle = 78%, high = 89%). However, given the cross-sectional nature of the design, a causal relationship should not be inferred.

Table 5
Time Required to Complete SWO PQS (Months) by Performance Group

Performance Group	Mean	SD	N
Low third	27.77	6.06	25
Middle third	23.95	11.46	38
High third	22.18	6.65	49
Total	24.03	8.67	112

Note. The ANOVA test of group means (adjusted for one covariate, commissioning year $F(1,110) = 41.39$, $p < .001$) is significant, $F(2,109) = 4.97$, $p < .009$.

Table 6
Percentage of SWO PQS Completed by Career Intent Group

Career Intent Group	Mean	SD	N
Low third	78.85	25.44	87
Middle third	87.92	20.98	82
High third	89.58	18.07	80
Total	85.39	21.87	248

Note. The ANOVA test of group means (adjusted for one covariate, commissioning year, $F(1,246) = 52.114$, $p < .001$) is significant, $F(2,245) = 7.34$, $p < .001$.

Twenty-four percent ($N = 64$) of the junior SWOs in the sample were extended past their first sea tour PRD. However, contrary to expectations, only 13 percent ($N = 10$) of these were extended to complete SWO PQS. Thus, initial sea tour extension due to failure to complete SWO PQS in the recommended time occurred in less than 3 percent of the sampled population, independent of commissioning year group.

DISCUSSION AND CONCLUSIONS

This study identified several important factors related to the early career development of junior SWOs. Of particular importance is the demonstrated relationship between performance (FITREPS), career intent, and SWO PQS completion. While the cross-sectional nature of this research limits causal inference, these results strongly support the proposition that SWO PQS progress is a critical factor in the career development of junior SWOs. It is clearly in the officer's best interest to place a priority on SWO PQS attainment and to take an active role in overcoming impediments to SWO PQS progress,

such as ship assignment, status, or billet assignment(s). Also, it is in the Navy's best interest to initiate action to maximize the early developmental opportunity of junior SWOs.

It is evident that SWOS-Basic is accomplishing its mission of preparing the junior SWO for timely SWO PQS completion. Since FY 79, graduates of SWOS-Basic have had to complete 100 percent of all theory and systems line items during school. This allows them to proceed immediately with watch station and other operational SWO PQS requirements once aboard ship and provides COs with an officer who is an immediate asset to ship readiness. It is also important to note that SWOS-Basic graduates are not only considered to be better prepared for sea duty than are nongraduates, but also that they attain SWO PQS in 4.5 less months than do others, adjusting for "time lost" in school. This reduction in time to SWO PQS completion has further significance for career development. Under current Navy policy, junior SWOs remain on sea duty (usually for a period not to exceed 48 months) until they complete SWO PQS requirements or are assigned to shore duty, removed from the SWO community, and given a change of designator to 110X (General Unrestricted Line Officer). Also, they are not screened for department head school (a major career hurdle) until they complete SWO PQS. Thus, timely SWO PQS completion gives them the opportunity to receive feedback regarding selection for department head school. If a junior officer completes SWO PQS and is screened for department head school prior to MSR, he has objective information upon which to base a career decision, and the CO and detailers have a basis for realistic career counseling.

The findings related to shipboard assignment history and work experience point to the importance of recognizing differences between shipboard environments, especially during the initial sea tour. This appears to be especially true in cases where junior officers are assigned to ships with a relatively small SWO population (e.g., carriers) and where they remain in one billet (e.g., engineering) for the majority of the sea tour. In cases where SWOs are not heavily represented in the command structure and where the senior SWO is most likely a department head, junior SWOs are apt to feel socially isolated and restricted regarding development opportunity. The relationships between SWO PQS progress, opportunity to complete SWO PQS, and opportunity for professional growth while deployed suggests the importance of first tour ship status.

Under current Navy policy, junior SWOs must complete SWO PQS and qualify as officer of the deck (underway) within the first 24 months of shipboard service. This period may be extended for a period of up to 12 months in cases when certain conditions preclude SWO PQS completion within the 24-month time frame (e.g., excessive time spent in overhaul status, minimal deployment time, requirements to complete engineering qualifications, etc.). While this policy does acknowledge situational constraints to SWO PQS completion, it also may promote the extension at sea of junior officers in categories such as engineering department officers. Since it is considered that screening for department head school and assignment ashore are two of the more powerful motivations for expeditious SWO PQS completion, junior officers who are extended for any reason may become seriously dissatisfied with the Navy and negatively perceive the SWO career path.

Since junior SWOs have virtually no control over ship deployment/maintenance schedules, those who have little opportunity for SWO PQS progress (due to minimal deployment time and/or lack of billet rotation) may feel disadvantaged relative to those who have ample opportunity. The data suggest, however, that those who have the opportunity to make normal SWO PQS progress when they are deployed also feel a sense of accomplishment when they are not deployed. This implies that providing sufficient opportunity to work on SWO PQS early in the first sea tour serves to buffer the potentially negative aspects of later nonoperational periods.

Although SWO PQS completion is not related to the junior SWO's evaluation of his first ship's performance, it is related to his evaluation of the performance of the division to which assigned. This finding is not surprising since pride and affiliation regarding one's immediate work group has been found to be an important contributor to performance and job satisfaction in a variety of work settings. This is especially true during the introductory period of employment where the individual is (1) concerned about identity, (2) establishing new relationships, and (3) considering career options based on early organizational experiences.

In summary, the results of this investigation strongly suggest that the design, implementation, and evaluation of programs/procedures to familiarize junior SWOs with the realities of SWO PQS completion and the relationship between early "career hurdles" and later career opportunity should be emphasized. Leaders at all levels, particularly at the department head level, should understand and be responsive to those factors that impact on early junior SWO development (e.g., assignment policy, shipboard assignment variation, deployment time, etc.). The department head's importance in this process is reinforced by the finding that junior officers see the department head as being very influential in their career decision making and as providing the most frequent source of career information (Holzbach, 1980).

While general needs of the Navy must prevail, a proper balance must be struck (especially in peacetime) between a conscientious effort by leaders to maximize junior SWO developmental opportunities and the command's operational efficiency. For example, although a junior SWO may be an operational asset in an engineering department, his SWO PQS progress may be impeded if he is not exposed to other learning situations/billets. This situation could then adversely impact motivation, performance, career intent, selection for career enhancing billets, and promotion opportunity.

While the results of this research have direct applications for the leaders and managers of the junior SWO community, the limitations imposed by a cross-sectional design used must be recognized. The most critical limitation is that such a design prohibits the determination of causal relationship (e.g., the relationship between career intent and SWO PQS progress). Also, results should not be generalized to SWOs other than those at the predepartment head level. Current research with the surface warfare community being conducted by this Center, which is both longitudinal and cross-sectional (including 20-cohort-year groups), is expected to clarify causal relationships and permit comparisons across career stages.

RECOMMENDATIONS

Attendance at SWOS-Basic should continue as a prerequisite for assignment to the initial sea tour for all junior SWOs. In this regard, it should be noted that interviews conducted with more than 75 SWOs in 1981 indicate that it may be beneficial for junior SWOs to report aboard their assigned ship for a short period (2-4 months) while awaiting assignment to SWOS-Basic. This would allow the junior officer to become familiar with shipboard life and provide a context for the academic content of SWOS-Basic. It is strongly recommended, however, that such a familiarization program be evaluated on a pilot basis to isolate both positive and negative outcomes.³

³Since many newly commissioned junior SWOs have little knowledge and experience, this orientation period could result in the formation of negative impressions (for either the junior SWO or the command) that would have a negative impact on post-SWOS-Basic adjustment and performance.

Research and development should be initiated to design and evaluate an expanded unit of instruction in professional development at SWOS-Basic. This unit would focus on:

1. The identification and description of similarities and differences between ship types and assignment patterns as they affect SWO PQS completion. This information would be provided to SWOS-Basic students with suggestions for coping with some of the more problematic situations.
2. An assessment of the importance of self-direction, goal setting, and the exercise of personal control by the individual junior SWO regarding SWO PQS completion, according to a variety of typical situations (e.g., deployment status, billet assignments, ship type, etc.), and the relationship between such personal initiatives, SWO PQS progress, and career intent/performance. If it is found that certain groups (e.g., those who defer to external sources regarding career progress) are disadvantaged relative to their peers, skills training would be initiated to bolster the personal resources of these groups.
3. The importance of identifying and using available sources of support, guidance, and information to maximize the opportunity to complete SWO PQS.
4. The impact of having experienced junior SWOs (particularly those just completing SWO PQS from a variety of ship types) interact with SWOS-Basic students for the purpose of disseminating "lessons learned," answering "how to" questions, and discussing problem-solving strategies appropriate for various ship and billet assignments.

All levels of officer leadership aboard all ships should take an active role in encouraging and monitoring the timely completion of SWO PQS for all junior SWOs. The training officer, accountable to the CO, should be designated to implement and supervise a scheduled SWO PQS program, which includes interdepartmental rotations. In this regard, COs should ensure that department heads who supervise junior officers recognize the critical nature of their role in junior officer development, support the attainment of SWO PQS at the earliest date, and facilitate the rotation of junior officers through several departments (even if this results in a temporary loss of efficiency for their department). Such positive leadership actions can be expected to facilitate junior officer adjustment during the initial period of sea duty, increase a general sense of affiliation with the community, and increase the attractiveness of a Navy career.

While most junior SWOs complete SWO PQS during their first sea tour, there is considerable variance in time necessary for completion. Important benefits should result if, as a result of coordinated policy, training, and support at all levels of command, the average time to complete SWO PQS and the variance in time can be reduced. Such benefits would include (1) increased operational efficiency and command readiness, (2) an increased sense of individual accomplishment and commitment to the Navy, (3) a reduction in the number of superior junior officers who are delayed for rotation ashore, selection to department head school, or promotion due to noncompletion of SWO PQS, and (4) increased continuance rates for those with high career potential.

In summary, the maintenance of a strong surface force is dependent, in many respects, on the proper selection, training, and performance of a professionally competent, highly motivated junior SWO community. The findings contained in the report suggest that greater emphasis be placed on identifying and maximizing conditions that promote junior SWO career development. Not only must training and policy be directed toward achieving these goals, but also senior officers must become more aware of their role in and responsibility for such career development. This would be especially true in

commands where the CO, XO, or department head is from a community other than surface warfare, such as aircraft carriers where the CO and XO are naval aviators.

It is also clear that additional research is needed to understand more fully factors that impact on early junior SWO development and performance. With such information, pilot programs such as those recommended in this report can be designed and subjected to empirical validation. Such programs could then serve as models for junior officer training in other communities.

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APPENDIX

**SURFACE WARFARE JUNIOR OFFICER
CAREER QUESTIONNAIRE (EXTRACT)**

I. BACKGROUND

1. Name: _____
Rank _____ First _____ M. I. _____ Last _____
2. SSAN: _____ - _____ - _____ 3. DOB: _____ Month _____ Year _____
4. Race: BLACK CAUCASION HISPANIC ORIENTAL OTHER _____
5. Marital Status: UNMARRIED ENGAGED MARRIED--HOW LONG? _____
6. Number of Children living with you and ages: _____
7. Commissioning Source: USNA NROTC(S) NROTC(C) OCS NESEP OTHER _____
8. Date of Commissioning: _____ Month _____ Year _____
9. Undergraduate School: _____ Major: _____
10. Undergraduate Class Rank:
- | Top 20% | Next 20% | Middle 20% | Next 20% | Bottom 20% |
|------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Academic: <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Military: <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
11. Designator: 1110 1115 1160 1165 Other _____
12. Were you a SWOS Basic Distinguished Graduate? NO YES DID NOT ATTEND SWOS
13. Were you ever assigned to a community other than Surface Warfare?
NO YES - which one? _____
14. Have you requested augmentation?
- No, I was commissioned a Regular Officer.
 No, and do not plan to do so.
 No, and I am undecided right now.
 No, but I plan to do so.
 Yes, and was refused. I do not plan to reapply.
 Yes, and was refused. I plan to reapply.
 Yes, and am awaiting the results.
 Yes, and was accepted.

II. PROFESSIONAL QUALIFICATIONS

1. What percentage of the SWO PQS have you completed? _____ % N/A

2. When were you awarded the 111X designator? _____ Month N/A Year

3. Have you qualified as an EOOW?

NO YES - when? _____ Month _____ Year

4. Have you been selected for the Department Head Course?

- () No, I have not applied.
- () No, I applied but have not been notified of the results.
- () No, I applied but was not selected.
- () No, but I plan to.
- () Yes.

5. Have you been selected for the Navy Postgraduate School, or another Navy sponsored full time postgraduate degree program?

- () No, I have not applied.
- () No, I applied but have not been notified of the results.
- () No, I applied but was not selected.
- () No, but I plan to.
- () Yes.

6. Please complete the following table by providing the indicated information from your last six fitness reports, starting with your most recent one. Please circle your position on the Evaluation and Summary rankings. The first two lines are filled in as examples.

Date (block 13)	Evaluation and Summary (blocks 51 & 52)									EARLY PROMOTION		
	TOP				TYPICALLY EFFECTIVE		BOTTOM			(block 62) RECMD	(block 66) RANKING	(block 65) NUM RECMD
	1%	5%	10%	30%	50%	50%	30%	MARG	UNSAT			
5/78	2	1	1		1					YES	3	of 3
11/77	1	3		1				1		NO		of
												of
												of
												of
												of
												of
												of
												of

III. CAREER INTENTIONS

MCCOG

This item concerns the intensity of your desire for a career as an officer in the military service. It consists of (1) a question and (2) a response gradient extending continuously between two defined extreme values.

Selected areas on the gradient are described, both verbally and in terms of probabilities, to provide you with some meaningful, reference points and to provide for more precision in scalar interpretation.

At selected scalar points, percentages beside the gradient indicate the judged probability (number of judged chances in 100) of one voluntarily continuing his active military career until mandatory retirement. Note, however, you definitely should not limit yourself to the few points for which descriptions are provided.

Due to the procedures for analyzing this item, it is very important that you follow these instructions precisely.

INSTRUCTIONS

Step one. Read carefully the statement of the question in the box at the bottom of this page.

Step two. At the bottom of the gradient, read the definition of that extreme point on the gradient.

Step three. At the top of the gradient, read the definition of that extreme point.

Step four. At the middle of the gradient, the 50% point, read the description of that point.

Step five. Locate the general area on the gradient which seems to correspond best with your current commitment; thoughtfully read the descriptions of the near points and decide on the exact point on the gradient that most closely represents your current level of commitment.

Step six. Blacken the response space between the nearest pair of dotted lines; thus, if the point you initially selected is about midway between two response spaces, mark the response space which most nearly reflects your degree of commitment.

QUESTION:

To what degree are you now certain that you will continue an active military career until mandatory retirement?

MILITARY CAREER COMMITMENT GRADIENT
A MILITARY CAREER VS. A NON-MILITARY CAREER

"--There is infinite probability that I will continue my active military career as long as I possibly can, a career as an officer in active military service is more important to me than is anything else in the world. There is absolutely no chance at all that anything in the world could ever develop that could cause me to voluntarily resign.

-99.995%

--I am virtually certain that I will continue my active military career as long as I am allowed to do so--that I will NOT voluntarily resign.

--I am almost certain I will make a continuing military career if possible

-95%

--I am confident that I will make a continuing military career and NOT voluntarily resign.

-85%

--I am very likely to continue my military career as long as possible.

--I probably will remain in the military service after completion of my military obligation as an officer.

--I am not inclined the least bit either way at present.

--I am not sure but probably will resign after completing my military obligation as an officer.

--I am very likely to resign when I can honorably do so after completing my military obligation as an officer.

-15%

--At this time, I am confident I will resign my commission after completing my military obligation.

-5%

--As of now, I am almost certain that I will get out of the military service as soon as I possibly can.

--I am virtually certain that I will resign when I can.

-0.005%

In my personal feelings, attitudes and thoughts, I am utterly committed to a completely non-military occupational career and life as soon as it is at all possible. There is absolutely no possibility whatsoever that I will continue as an officer in the military service beyond my minimal obligated military duty.

IV. ASSIGNMENT HISTORY AND EVALUATION

A. First Sea Tour

In this section (pages 5 through 10) a number of questions are presented that seek information about your first sea tour. Please answer these questions as they apply to your first full sea tour following commissioning as a Surface Warfare Officer. If you were split-toured, first sea tour applies to your first ship assignment.

1. Ship Type (e.g., AOE, CVN, DD, LST): _____
2. Homeport: _____
3. Date reported (month, year): _____
4. PRD (month, year): _____
5. During your first sea tour, in which of the following areas have you been assigned, and for how long?

() Deck	_____ (months)
() Engineering	_____ (months)
() Navigation	_____ (months)
() Operations	_____ (months)
() Weapons	_____ (months)
() Other _____	_____ (months)
6. What has been the operational status, in months, of your ship since you reported aboard?

<u>STATUS</u>	<u>MONTHS</u>
a. Underway while deployed	_____
b. Inport while deployed	_____
c. Local operations	_____
d. Inport upkeep (homeport)	_____
e. Shipyard overhaul (including non-homeport upkeep)	_____

7. Approximately how many hours per week do you typically work while your ship is in each of the five operational status types identified in Question 6? Please break the time down into the time devoted to watch station, billet duties, collateral duties, and professional development (PQS).

	TOTAL HRS/WK	WATCH STATION (%)	BILLET DUTIES (%)	COLLATERAL DUTIES (%)	PROFESSIONAL DEVELOPMENT (%)
a. Underway while deployed	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Inport while deployed	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. Local operations	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. Inport upkeep (homeport)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. Shipyard overhaul (including non-homeport upkeep)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

8. Have you been (or will you be) extended in this sea tour beyond your initial PRD?

N/A NO YES - how long? _____ (months)

9. If you answered YES to Question 8, what was (is) the reason?

- () Complete PQS/attain SWO designator
() Attain Department Head Course selection
() Awaiting relief
() Shortage of PCS funds
() Own request not included under (a) or (b)
() No reason given
() Other _____

10. When on a deployment, what is your evaluation of the following aspects of your job and related duties?

	<u>Very Negative</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>	<u>Very Positive</u>
a. Challenge	()	()	()	()	()
b. Separation from family/friends	()	()	()	()	()
c. Use of skills & abilities	()	()	()	()	()
d. Working environment	()	()	()	()	()
e. Hours of work required	()	()	()	()	()
f. Work pressure	()	()	()	()	()
g. Interesting duties	()	()	()	()	()
h. Ability to plan & schedule activities	()	()	()	()	()
i. "Adventure"	()	()	()	()	()
j. Opportunity to complete PQS	()	()	()	()	()
k. Sense of accomplishment	()	()	()	()	()
l. Opportunity to grow professionally	()	()	()	()	()
m. Doing something important	()	()	()	()	()
n. Relationships in wardroom	()	()	()	()	()

11. When not deployed, what is your evaluation of the following aspects of your job and related duties?

	<u>Very Negative</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>	<u>Very Positive</u>
a. Challenge	()	()	()	()	()
b. Separation from family/friends	()	()	()	()	()
c. Use of skills & abilities	()	()	()	()	()

	<u>Very Negative</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>	<u>Very Positive</u>
d. Working environment	()	()	()	()	()
e. Hours of work required	()	()	()	()	()
f. Work pressure	()	()	()	()	()
g. Interesting duties	()	()	()	()	()
h. Ability to plan & schedule activities	()	()	()	()	()
i. "Adventure"	()	()	()	()	()
j. Opportunity to complete PQS	()	()	()	()	()
k. Sense of accomplishment	()	()	()	()	()
l. Opportunity to grow professionally	()	()	()	()	()
m. Doing something important	()	()	()	()	()
n. Relationships in wardroom	()	()	()	()	()

12. Using the following scale, what is your evaluation of your CO's in the following areas? (1=Very Negative, 2=Negative, 3=Neutral, 4=Positive, 5=Very Positive)

	<u>1st CO</u>	<u>2nd CO</u>	<u>3rd CO</u>
a. Seamanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Management ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Leadership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interest in JO professional development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Interest in welfare of his crew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Interest in welfare of his wardroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Which of the following officers had the greatest influence on your career decisions?

CO	XO	DEPARTMENT HEAD	OTHER DEPARTMENT HEADS	OTHER JO's
----	----	-----------------	------------------------	------------

14. What is your evaluation of the individual identified in Question 13 in the following areas as they apply to you?

	<u>Very Negative</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>	<u>Very Positive</u>
a. Working relationship	()	()	()	()	()
b. Leadership	()	()	()	()	()
c. Career guidance	()	()	()	()	()
d. Professional development	()	()	()	()	()

15. What is your overall evaluation of the following groups?

	<u>Very Negative</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>	<u>Very Positive</u>
a. Wardroom	()	()	()	()	()
b. Immediate superiors	()	()	()	()	()
c. Immediate subordinates	()	()	()	()	()
d. CPO's and PO1's	()	()	()	()	()
e. PO2's and below	()	()	()	()	()

16. Based on fleet competitions, exercises, inspections, meeting commitments, general reputation, etc., how good is your--

	<u>One of the Worst</u>	<u>Below Average</u>	<u>Average</u>	<u>Above Average</u>	<u>One of the Best</u>
a. Ship	()	()	()	()	()
b. Department	()	()	()	()	()
c. Division	()	()	()	()	()

17. What is your evaluation of the geographic location of your duty assignment?

VERY NEGATIVE NEGATIVE NEUTRAL POSITIVE VERY POSITIVE

18. Approximately how long (in months) did it take you to feel that you "fitted in" with your--

- a. Command/activity _____ still don't
b. Local community _____ still don't

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